



THE HEAT IS ON! DEALING WITH HEAT STROKE

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Summer 2022 is already setting record temperatures across the world. With high temperatures and unpredictable weather, it's always important to be prepared for exertional heat stroke. Construction, transportation, and warehousing are among the occupations with the highest heat-related mortality rates according to [OSHA statistics](#). Heat-related illness is also vastly underreported and is shown to lead to significantly increased work-related injury risk, lost wages, and lost productivity.

A Quick Overview

Heat stroke is a life-threatening condition which occurs when the body's core temperature rises above 40°C (104°F). This can occur when the body cannot cool itself adequately through sweating and evaporative cooling. This may be due to humidity, heavy clothing or, heavy equipment. As body temperatures continue to rise, it causes heat-related injury to the organs and can result in death if quick action is not taken.



How to Deal With Heat Stroke

In athletic settings, cold water immersion (CWI) is the gold standard for treatment of heat stroke and is now the recommendation of OSHA as well. The goal is to cool as aggressively as possible to reduce body temperature to less than 38.9°C (102°F) within 30 minutes of collapse. If CWI is achieved within 10 minutes of collapse, heat stroke has a [100% survival rate](#). In the industrial setting this is not a common practice but can easily be implemented with the following considerations!

Assessment

- A core temperature of >40°C (104°F) is a sign of heat stroke.
 - Rectal temperature is the best gauge for assessment of core temperature and [no other temperature method](#) should be utilized instead.
 - If no rectal thermometer is available, but heat stroke is suspected due to clinical presentation, CWI is still indicated.

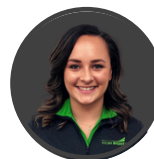


Why Cool 1st - Transport 2nd?

- TIME! The longer the body spends at high core temperatures, the less likely survivability will be.
- *Immediate onsite cooling avoids delays in cooling when every minute counts.*
- Aggressive cooling rates (>0.15°C/min) are needed to reduce body temperature to 38.9°C *before transport.*
- This is often in disagreement with EMS protocols so discussions with local EMS prior to implementation are encouraged.

Best Cooling Options

- A 50-100 gallon plastic tub is an ideal cooling vessel to submerge the torso and limbs.
 - A water temperature of 10°C (50°F) [is ideal](#).
- A [body bag or tarp](#) can also be used if no tub is available.
- CWI is the gold standard, but if the above options are not available, a [cold shower cooling](#) is recommended while awaiting EMS transport.



About Miranda Zamora-Williams, ____ ||
Miranda is a Certified Athletic Trainer

Work Right NW is changing the way that companies view workplace hazards. Our focus is on educating the workforce to prevent injury. We provide access to Injury Prevention Specialist's in the workplace to address the early signs of discomfort. We are changing the industry one company at a time by helping one person at a time.